L 22919-66 EWT(m)/EWP(w)/EWA(d)/EWP(j)/T/EWP(t) LIP(c) JD/DJ/GS/RM
ACC NR: AT6008947 (A) SOURCE CODE: UR/0000/65/000/000/0075/0082

AUTHOR: Tsurkan, V. P.

ORG: none

TITLE: Electric phenomena at friction points of metal-plastic

SOURCE: Moscow. Institut mashinovedeniya. Plastmassy v podshipnikakh skol'zheniya; issledovaniya, opyt primeneniya (Plastics in friction bearings; research and experiment in application). Moscow, Izd-vo Nauka, 1965, 75-82

TOPIC TAGS: static electricity, plastic characteristic, friction, dielectric polarization, charge exchange, oscillograph, voltmeter, steel/ MPO-2 oscillograph, VK7-3 voltmeter, S1-4 oscillograph, 2KO-1 oscillograph, 45 steel

ABSTRACT: Experimental studies were conducted on the triboelectricity produced when plastic and metal rub against each other. This work extended previous studies and confirmed the findings of N. G. Drozdov (Staticheskoye elektrichestvo v promyshlennosti. Gosenergoizdat, 1948) that the electrification of dielectrics under the same friction conditions is a characteristic of the polymer. In all, 10 polymers were used as shafts in the test circuit (see Fig. 1). The bushing was made of 45 steel processed to a class 8 smoothness. Two DC amplifiers with an accumulator were included with an MPO-2 loop oscillograph for displaying the time variation of the charge. The screen was photographed on motion picture film. A VK7-3 cathode

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L 22919-66
ACC NR: AT6008947

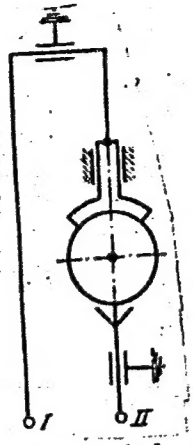


Fig. 1. Circuit for measuring the potentials. I - bushing circuit (steel); II - shaft circuit (polymer).

voltmeter determined the charge polarity. All 10 pairs tested accumulated static electricity. Teflon-4 reached the highest charge (5000 v) at a speed of 1 m/sec and at a specific pressure of 1 kg/cm^2. The electrification of the pairs, which sometimes took 10 minutes to reach stability, showed four characteristics: a) steel and plastic carried a steady opposite polarity; b) steel and plastic symmetrically altered polarity; c) polarity of the polymer shaft changed repeatedly; d) both materials were similarly charged. To study the instantaneous charge-discharge pulses accounting for this effect, a S1-4 cathode-ray oscillograph and a 2KO-1 double beam cathode oscillograph were used. The first 12 seconds showed principally negative pulses of high

Card 2/3

L 22919-66

ACC NR: AM6008947

amplitude. Later, alternating polarity pulses of lesser amplitude were registered. The rate of charge accumulation depended on the polarity asymmetry of the pulses. The specific load determined the charge accumulation rate but not the final potential. Orig. art. has: 1 table, 2 formulas, and 3 figures.

SUB CODE: 09/ SUBM DATE: 31Jul65/ ORIG REF: 003

Card 3/3

TSUKANOV, A.

Motorized club. Sov.shakht. 10 no.9:33 S '61. (MIRA 14:8)

1. Nachal'nik peredvizhnogo kluba Stalinskogo obkoma profoyuza rabochikh ugol'noy promyshlennosti.
(Coal miners)

TSUKANOV, A.

Artel of the disabled makes a profit. Prom. koop.no.9:11-12 S '56.
(MLRA 9:10)

1.Nachal'nik proizvodstvennogo otdela Mosgormetpromsoyuza.
(Disabled--Rehabilitation, etc)

TSUKANOV, A.A., inzh.

Calculation of transient processes of some nonlinear circuits.
Sbor. trud. DIIT no.39:60-75 '63. (MIRA 18:4)

L 11155-66 EWP(e)/EWT(m)/EWP(b) WH

ACC NR: AP6000347 SOURCE CODE: UR/0286/65/000/021/0043/0043

AUTHORS: Syritskaya, Z. M.; Ivanova, V. M.; Anasovskaya, Z. A.; Meller, E. A.; Tsukanov, A. A.

ORG: none

TITLE: Glass. Class 32, No. 176051 [announced by Gusevskiy Branch of the State Scientific Research Institute of Glass (Gusevskiy filial nauchno-issledovatel'skogo instituta stekla)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 43

TOPIC TAGS: glass, silicon dioxide, alumina, boron compound, magnesium oxide, calcium oxide, sodium oxide, potassium oxide

ABSTRACT: This Author Certificate presents a glass for producing chemically stable products. The glass contains SiO_2, Al_2O_3, B_2O_3, MgO, CaO, Na_2O, and K_2O. To increase its resistance to the action of glucose solution with ascorbic acid, the above components are contained in the following amounts (wt. %): SiO_2 70—74; Al_2O_3 7—9; B_2O_3 2.5—5.5; MgO 1—3.5; CaO 1—2; Na_2O 6—7.5; K_2O 1.5—2; and also 2—5% of La_2O_3.

SUB CODE: 11/ SUBM DATE: 20Jun64

UDC: 666.117.4

Card 1/1

TSUKANOV, A.A.; SOLOV'YEV, Yu.A.

The PD-2 disk transfer device. Stek. i ker. 22 no.6:31-32 Je '65.
(MIRA 18:6)

MOLDAVSKAYA, V.D.; TISHCHENKO, O.D.; USTINOV, A.A.; MOSHENSKAYA, F.A.; ZALKIND, L.B.; MIKHAYLOV, A.A.; TSUKANOV, A.A.; MATSUKA, A.G.; DEMCHENKO, I.A., direktor instituta.

Eradication of malaria from a town under conditions prevailing in the south of the Ukrainian S.S.R. Med.paraz.i paraz.bol. no.3:232-237 My-Je '53. (MLRA 6:8)

1. Ukrainskiy institut malyarii i meditsinskoy parazitologii i iz Stalinskoy i Zhdanovskoy protivomalyariynykh stantsiy.
(Ukraine--Malarial fever) (Malarial fever--Prevention)

LAPKIN, .D. (Dnepropetrovsk); TSUKANOV, A.A. [TSukanov, O.A.] (Dnepropetrovsk)

Dynamic stresses in an elastic viscous string caused by a sudden application of an end load by an elastic element. Prykl.mekh. 7 no.5:483-486 '61. (MIRA 14:10)

1. Dnepropetrovskiy institut inzhenerov transporta.
(Elastic rods and wires)

TSUKANOV, A.G., starshiy prepodavatel'

Energy transfer with a blow in drilling and breaking hammers. Izv. vys. uch. zav.; gor. zhur. 5 no.6:109-114 '62. (MIRA 15:9)

1. Tomskiy ordena Trudovogo Krasnogo Znameni politekhnicheskiy institut imeni S.M.Kirova. Rekomendovana kafedroy teoreticheskoy mekhaniki.

(Boring)

NIKOLAYEV, V.A.; IVANCHENKO, F.K.; TSUKANOV, E.F.; PAVLENKO, B.A.; CHEPELEV, P.M.

Investigating applied stresses during rolling on rail and structural steel mills. Stal' 23 no.10:924-925 O '63. (MIRA 16:11)

1. Dneprodzerzhinskiy metallurgicheskiy zavod-vtuz i zavod im. Dzerzhinskogo.

SOV/133-58-11-16/25

AUTHOR: Tsukanov, G.E., Engineer

TITLE: Tube Billet Mill of the Works imeni Dzerzhinskiy (Trubozagotovochnyy stan zavoda im. Dzerzhinskogo)

PERIODICAL: Stal', 1958, Nr 11, pp 1012 - 1017 (USSR)

ABSTRACT: A short description of the tube billet mill (900-750x3) on the Dzerzhinskiy Works put into operation in January, 1957, operational practice adopted and some deficiencies in the layout of the plant are given. The layout of the mill - Figure 1, the output of the mill during 1957 and the first quarter in 1958 - Figure 2, roll passes of stand 900 and 750 - Figures 3 and 4, respectively, reduction conditions for square and round billets - Tables 1 and 2, respectively. Main deficiencies in the layout: insufficient lengths of tables behind the 900 stand, so that reverse flow during rolling of 7-ton ingots is necessary; the removal of billets 1 000 mm long for own use is wrongly designed as there is insufficient space for

Card 1/2

Tube Billet Mill of the Dzerzhinsk Iron and Steel Works

dressing; and coolers are designed for billets up to 6 m long whilst billets of 9 and 12 m long are also being produced. There are 5 figures, 2 tables and 2 English references.

ASSOCIATION: Zavod im. Dzerzhinskogo (Works imeni Dzerzhinskiy)

S/137/61/000/005/014/060
A006/A106

AUTHORS: Ivanchenko, F.K., Molotkov, L.P., Tsukanov, E.F., Nikolayev, V.A., Pavlenko, B.A.

TITLE: Measurement of pressure on a medium-sheet mill and new conditions of reduction

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no.5, 1961, 4, abstract 5D26 ("Sb.tr. Dneprodzerzh. vech. metallurg. in-ta", 1960, v.2, 139-145)

TEXT: The authors present a short description of the mill which consists of two stands: a Lauth three-high mill - for the broaching of a smooth sheet, and a two-high mill for the rolling of a corrugated sheet. During the investigations the temperature and pressure of the metal on the rolls were measured when rolling smooth sheets of 4 x 1,400 x 4,200 mm dimensions and Ст .3 (St.3) corrugated steel sheets of 5 x 1,100 x 6,000 mm. The experimental results were used to calculate new conditions of reduction which make it possible to raise the efficiency of the mill by 15 - 20%.

V. P.

[Abstracter's note: Complete translation]

Card 1/1

133-58-4-17/40

AUTHORS: Tsukanov, E.F., Ivanchenko, F. K. and Molotkov, L.F., Docents, Pavlenko, B. A., Nikolayev, V. A., Krizhanovskiy, A. L. and Kokhno, P. Ya., Engineers

TITLE: Investigation of Loads During Rolling Plates (Issledovaniye davleniy pri prokatke listov)

PERIODICAL: Stal', 1958, Nr 4, pp 332-334 (USSR)

ABSTRACT: The measurements of rolling loads endured by rolls in a medium plate mill during rolling plates were carried out. The mill consisted of two stands in line: three rolls (LAUT) for rolling plates and two-rolls for riffling plates. In the three roll mill 670 x 517 x 670 mm for rolling smooth plates cast iron rolls with a chilled surface are used and for riffled plates, forged steel rolls (50 KhG). The length of rolls 1800 mm. In the two roll stand in which only one pass is made for riffling, cast iron rolls of 650 mm diameter with chilled surface are used. The mill is powered with a 900 h.p. motor. Riffled plate was rolled in 10-12 passes and smooth plates in 11-13 passes. Measurements of loads on rolls were carried out during rolling plates (dimensions in Table 1) and the most characteristic results are given in Table 2. Experimental results are compared in Figs.1-3.

Card 1/2

Investigation of Loads During Rolling Plates 133-58-4-17/40

Conclusions: During intensive reductions in cast iron chilled rolls stresses are formed considerably exceeding the permissible ones. Specific load on rolls 5-6 kg/mm^2 at the beginning of rolling increases at the end of rolling to 28-30 kg/mm^2. During rolling on steel rolls the specific load is higher than on rolling on cast iron rolls (due to an increase in friction in the former case). During rolling comparatively thin products ($H < 33$ mm) the maximum specific pressure was observed at reductions of 34-40%. With further increase in reduction the specific load decreases.
There are 2 tables, 3 figures and 3 references, all of which are Soviet.

ASSOCIATIONS: Dneprodzerzhinskiy vecherniy metallurgicheskiy institut (Dneprodzerzhinsk Evening Metallurgical Institute) and zavod im. Dzerzhinskogo (Works imeni Dzerzhinskiy)

1. Rolling mills--Operation 2. Plates--Rolling 3. Rolling mills--Stresses

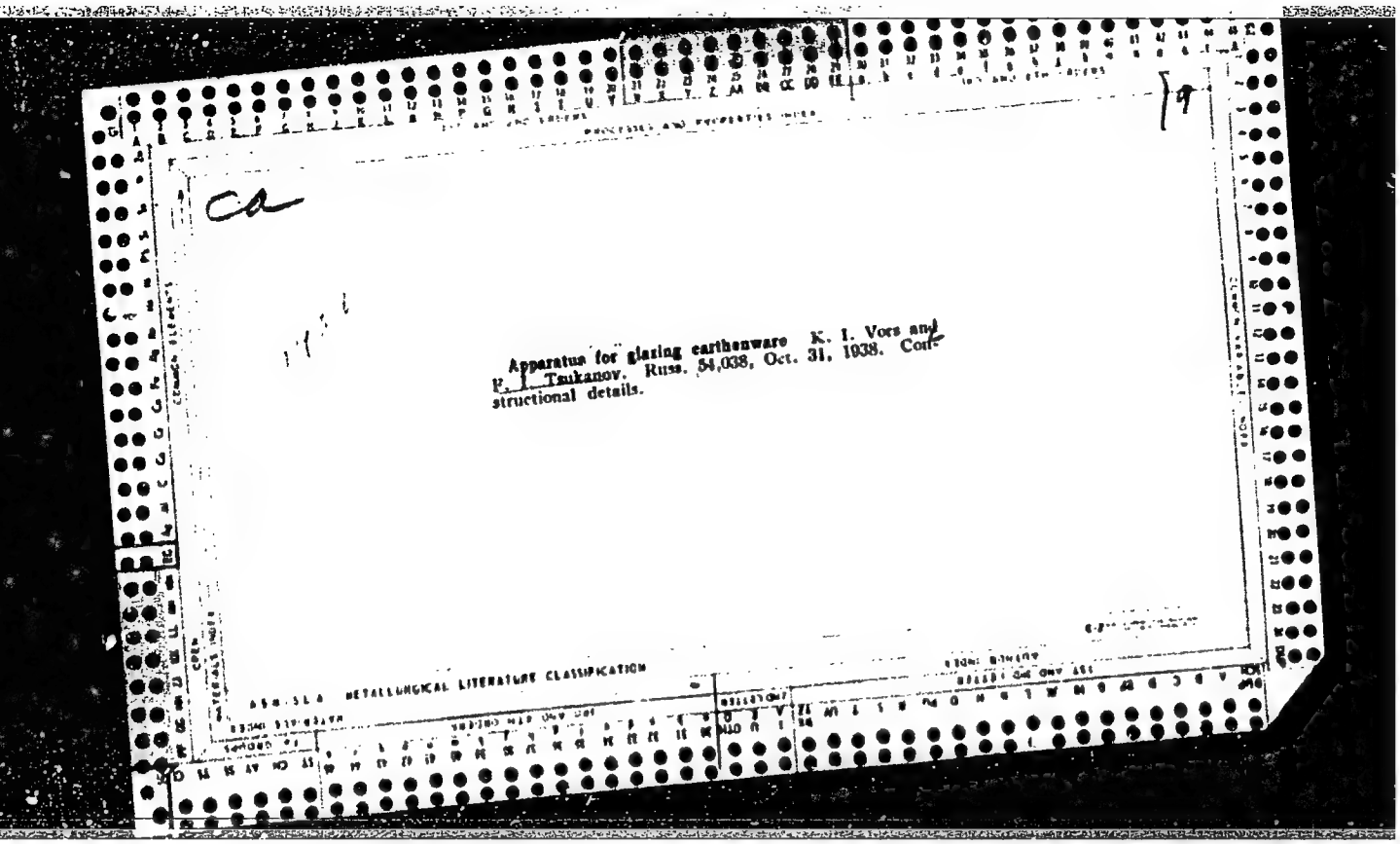
Card 2/2

TSUKANOV, N.F., dots.; IVANCHENKO, F.K., dots.; MOLOTKOV, L.F., dots.; PAVLENKO, B.A., inzh.; NIKOLAYEV, V.A., inzh.; KRIZHANOVSKIY, A.L., inzh.; KOKHNO, P.Ya., inzh.

Investigating pressures during plate rolling (with summary in English). Stal' 18 no.4:332-334 Ap '58. (MIRA 11:5)

1. Dneprodzerzhinskiy vecherniy metallurgicheskiy institut i Zavod im. Dzerzhinskogo.

(Rolling (Metalwork))



Apparatus for glazing earthenware K. I. Vors and P. I. Tsukanov. Russ. 54,038, Oct. 31, 1938. Constructional details.

S

USSR/Human and Animal Morphology - Normal and Pathological.
Anomalies of Development and Pathological Anatomy

Abs Jour : Ref Zhur Biol., No 11, 1958, 50415

Author : Mil'man, N.Ya., Tsukasov, I.A.

Inst : -

Title : A Rare Congenital Monstrosity

Orig P b : Akusherstvo i ginekologiya, 1957, No 2, 110-111

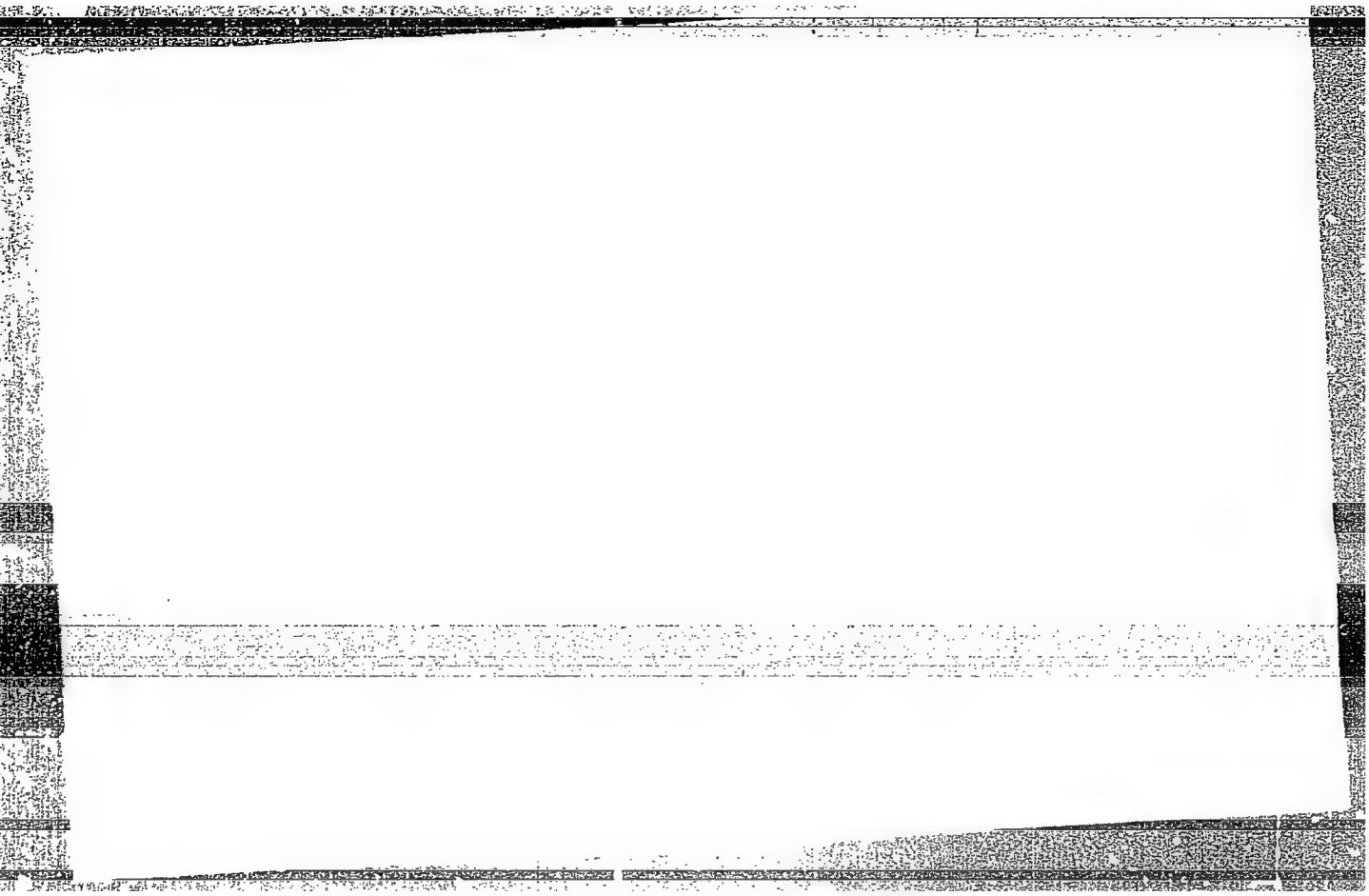
Abstract : A case of birth of a child with three lower extremities, two pelves, anastomosis between the urinary bladder and rectum, and with umbilical and myelocele hernias, is described. The child lived about two weeks.

Card 1/1

ZALIZNYAK, A.A., kand. tekhn. nauk; TSUKANOV, A.A., inzh.; VINOKUROV, Ye.A., inzh.

Bubbling of an HC-1 composition glass batch. Stek. i ker. 22 no.8: 8-10 Ag '65. (MIRA 18:9)

1. Gusevskoy filial Gosudarstvennogo nauchno-issledovatel'skogo instituta stekla (for Zaliznyak) 2. Tuymazinskiy zavod meditsinskogo stekla (for TSukanov, Vinokurov).



MOLOTKOV, L.F., kandidat tekhnicheskikh nauk, dotsent; TSUKANOV, G.E.; BORTUNOV, Ye.M., inzhener.

The operating conditions of vertical rolls in universal mills. Stal' 15 no.10:914-915 O '55. (MLRA 9:1)

1.Dneprodzerzhinskiy metallurgicheskiy institut i zavod imeni Dzerzhinskogo.

(Rolling mills)

1552* Intensification of Reduction Rate for an 1150-mm. Blooming Mill. Intensifikatsiia rezhima obzhatii na bliuminge 1150. (Russian.) A. P. Chekmarev, V. L. Pavlov, V. M. Klimenko, G. E. Tsukanov, E. M. Bortunov, and P. A. Yeshchilo. *Stal'*, v. 15, no. 10, Oct. 1955, p. 916-921

Studies to speed up rate of rolling steel blooms without impairing quality. Micro-structure and mechanical properties of blooms. Tables, micrographs, photograph, diagram. 8 ref.

Improving mechanical properties of bridge steels. [illegible] B. M. [illegible] Molokov, V. M. Vurerov, G. R. [illegible], [illegible] vich, B. M. Bortsulov, and N. G. [illegible] [illegible] 7/1955).—Bridge plate made of steel contg. C 0.[illegible] Mn 0.40–0.70, and Si 0.12–0.35%, [illegible] with 1 lb./ton Al, frequently did not meet the required impact strength min. of 4 kg./m./sq. cm. and showed coarse fracture. Supplementing Al deoxidation with the addn. of 1 lb./ton of Ti and controlling the temp. of the final pass as a function of plate thickness (figures given) greatly reduced the percentage of unsatisfactory plates. J. D. [illegible]

(6)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757130009-8"

TSUKANOV, G.E., inzh.

Pipe cogging mill at the Dzerzhinskii Plant [with summary in English]. Stal' 18 no.11:1012-1017 N '58. (MIRA 11:11)

1. Zavod imeni Dzerzhinskogo. (Dneprodzerzhinsk--Rolling mills) (Pipe, Steel)

SOV/133-59-3-14/32

AUTHORS: Samarin, A.M., Novik, L.M., Tsukanov, G.E., Kuznetsov, M.P. and Lukutin, A.I.

TITLE: Vacuum Treatment of Bessemer Steel (Vakuumnaya obrabotka bessemerovskoy stali)

PERIODICAL: Stal', 1959, Nr 3, pp 231-238 (USSR)

ABSTRACT: The application of vacuum treatment of Bessemer steel in a 22-ton ladle before teeming in order to improve the quality of steel was introduced at the Dzerzhinskiy Works in 1957. The design of the installation is outlined and the lay-out shown in Figure 1. Main point - the evacuation is effected by two parallel pairs of pumps, RVN60 and RVN-30, connected in series. The dependence of the output of pumps operating separately and connected in series on pressure is shown in Figure 2 and the change of pressure in the vacuo chamber with time in Figure 3. At the 8th minute of treatment the pressure in the chamber falls to 2 mm Hg. The gases pumped out of the chamber are cooled in a cooler and purified from dust in a cyclone and a filter. The investigation of the vacuo treatment on the quality of steel was carried out on [illegible] heats of rail steel and 17 heats of rimming steel. The duration of the treatment of

Card1/5

Vacuum Treatment of Bessemer Steel

rail steel varied between 12-15 minutes during which the metal was boiling violently - its level was rising up to 500 mm. In all cases, the metal was deoxidised with ferromanganese and ferrosilicon during tapping into the ladle; aluminium (150 - 500 g/t) was introduced after the treatment when the steel was already well deoxidised. A number of heats were carried out in which vanadium (0.1 - 0.15%) or boron (0.005%) were introduced under vacuum through a special charging arrangement 3-4 minutes before the end of the treatment. The chemical composition of the metal remains practically unchanged during the vacuo treatment; the content of iron oxides in slag decreases by 20-30% and of silicon by 5-6% due to deoxidation with carbon. Changes in the content of oxygen in rail steel during the treatment and teeming are shown in Figure 4 and of hydrogen in Figure 5. Changes in the content of hydrogen in the treated steel along the depth of the ladle are shown in Figure 6; sulphur of a cross-section of rail from vacuo-treated and ordinary steel - Figure 7; the dependence of the tensile strength, relative elongation and relative necking of rails from ordinary and vacuo-treated steel with additions of aluminium and vanadium

Vacuum Treatment of Bessemer Steel

before and after normalisation on the sum of [C + 0.25 Mn] - Figures 8, 9 and 10, respectively; the dependence of the impact strength of rails from vacuo-treated and ordinary steel on Σ[C + 0.25 Mn] at 20 °C - Figure 11, at - 40 °C - Figure 12, after deformation ageing - Figure 13. The mean duration of the vacuo treatment of rimming steel was 14.5 minutes at a minimum pressure of 16 mm Hg. The process is accompanied by a violent boiling (the level of the metal rises by 600 - 700 mm). As the pumping capacity was insufficient to decrease sharply the content of nitrogen, it was combined into stable nitrides by additions to some heats of aluminium (300 - 1 000 g/t) or vanadium (0.1%). The additions were made through the charging installation 4-5 minutes before the end of the treatment. The content of carbon decreases by 0.03 - 0.06% during the treatment. Changes in the content of oxygen and hydrogen during the treatment - Figures 14 and 15, respectively; indices of impact strength of the ordinary and treated metal are shown in Figure 16 and the table. On the basis of the results obtained, the following conclusions are drawn: a) vacuo treatment of liquid metal

Card3/5

Vacuum Treatment of Bessemer Steel

in the ladle increases the quality of Bessemer steel to a level of the open-hearth steel; b) with the duration of the treatment of 14-15 minutes and a pressure in the chamber of 5-10 mm Hg for killed metal and of 15-20 mm Hg for rimming metal a deep degassing of the whole volume of the metal is obtained (the content of oxygen decreases 4.4 - 6 times, on average to 0.0013% in rail steel and to 0.0041 in rimming steel; the content of hydrogen decreases by a factor of more than 2, approximately to 2.4 cm^3/100 g in rail and to 2.4 cm^3/100 g in rimming steel ; the content of nitrogen in rimming steel decreases by 38.5%).
c) This decrease in the content of hydrogen in rail steel makes it flake insensitive without an application of slow cooling or isothermal treatment of the rolled product.
d) Vacuo treatment makes the deoxidation of aluminium unnecessary which, if needed, can be introduced after the treatment into the metal already well deoxidised by carbon. Alloying additions can be also introduced into already deoxidised metal at the end of the treatment through special charging installation in the top of the vacuo chamber.
e) Bessemer rails from vacuo-treated metal possess higher plastic properties and impact strength at positive and

negative temperatures as well as after deformation ageing than rails made by the usual technology. On increasing carbon content to 0,8% and alloying with a small amount of vanadium (0.1 - 0.2%) or boron (0.003 - 0.005) or titanium (1-2 kg/t) and normalisation non-ageing rails can be obtained with higher physico-mechanical properties than those of rails from open-hearth steel. f) By vacuo treatment a good structural Bessemer steel can be obtained in which the zone of thermal influence of welded seam is not subjected to thermal ageing (decreased sensitivity of vacuo-treated metal to mechanical ageing is completely removed during normalisation of rolled products). There are 16 figures, 1 table and 2 Soviet references.

ASSOCIATIONS: Institut metallurgii AN SSSR (Institute of Metallurgy of the Ac.Sc.USSR) and Zavod im. Dzerzhinskogo (im. Dzerzhinskiy Works)

[illegible]-3-17/32

AUTHORS: Chekmarev, A.P., Academician, Ukrainian Academy of Sciences; Meleshko, V.I., Pavlov, V.L., Chekhranov, V.D., Candidates of Technical Sciences and ~~Tsukanov, G.E.,~~ Shafran, I.K., Engineers, Ivanin, M.P., Senior Operator

TITLE: Rolling of Twin Ingots on a 1150 Blooming Mill (Prokatka sdvoyennykh slitkov na bluminge 1150)

PERIODICAL: Stal', 1959, Nr 3, pp 243 - 247 (USSR)

ABSTRACT: A rolling practice of rolling two ingots (in line one after the other) into blooms and slabs introduced at the Dzerzhinskiy Works at the end of 1957 is described. Changes in the roll passes made in 1958 are shown in Figures 1 and 2; characteristic dimensions and weights of rolled ingots - Table 1; rolling conditions during simultaneous rolling of two ingots into blooms - Table 2 and into slabs - Table 3. The operation of the mill under the above rolling conditions was investigated in co-operation with the Iron and Steel Institute of the Ac.Sc.Ukrainian SSR. Examples of the oscillographs obtained, indices of the loads and rolling velocities on rolling single and twin ingots are shown in Figures 4 and 5 and Tables 4 and 5, respectively. The experience of this type of rolling practice indicated that it is advantageous to apply it on all blooming mills as a

Card1/2

SOV/133-59-3-17/32

Rolling of Twin Ingots on a 1150 Blooming Mill

15-30% increase in the output (depending on the type of ingot and dimensions of blooms and slabs) can be obtained. This increase is mainly due to a decrease in the idling time. By maintaining correct rolling velocities the occurrence of shocks in the main mill line (when the grip of the second ingot takes place during the retardation of the motor) can be avoided. When introducing twin-ingot rolling in existing mills, it is necessary to introduce protective measures from overloading of asynchronous and rolling motors according to heating conditions. When designing new mills or reconstructing an existing mill, the possibility of rolling twin ingots should be taken into consideration. For this purpose, an increase in the power of motors and an increase in the length of the manipulator is necessary. There are 5 figures and 5 tables.

ASSOCIATIONS: Institut chernoy metallurgii AN USSR (Institute Ferrous Metallurgy, AS UkSSR) and zavod im. Dzerzhinskogo (im. Dzerzhinskiy Works)

Card 2/2

PHASE I BOOK EXPLOITATION SOV/4548

Akademiya nauk SSSR. Komissiya po fiziko-khimicheskim osnovam proizvodstva stali

Primeneniye vakuuma v metallurgii (Use of Vacuum in Metallurgy) Moscow, Izd-vo AN SSSR, 1960. 334 p. Errata slip inserted. 4,500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni A.A. Baykova. Komissiya po fiziko-khimicheskim osnovam proizvodstva stali.

Resp. Ed.: A.M. Samarin, Corresponding Member, Academy of Sciences USSR; Ed. of Publishing House: G.M. Makovskiy; Tech. Ed.: S.G. Markovich.

PURPOSE: This collection of articles is intended for technical personnel interested in recent studies and developments of vacuum steelmaking practice and equipment.

COVERAGE: The book contains information on steel melting in vacuum induction furnaces, and vacuum arc furnaces, reduction processes in vacuum, and degassing of steel and alloys. The functioning of apparatus and equipment, especially vacuum furnaces and vacuum booster pumps is also analyzed. Personalities are mentioned in connection with some of the articles and will appear in the Table of Contents. Three articles have been translated from English. Some of the

Tsukanov, G.E.

ALEKSANDROV, P.A.; DOLZHENKOV, F.Ye.; VORONTSOV, N.M.; BAT', Yu. I; TSUKANOV, G.E.; SAZONENKO, V.P.; CHEPELEV, P.M.; KRUGLYAK, P.F.

Working out the grooving of rolls and auxillary equipment for the rolling of Z-shaped pile planks. Trudy Ukr. nauch.-issl. inst. met. no.6:133-156 '60. (MIRA 14:3)
(Rolls(Iron mills))(Rolling(Metalwork))

L 45814-65 EWT(d)/EWA(h)/EWP(l)/EWA(b)/EWA(c)/EWP(t) Pu-4 JD/EM/EM/RM S/

detailed [illegible] data slip inserted.

[illegible] the technical [illegible] the basic processes [illegible]

TSUKANOV, I.S., kand.tekhn.nauk

Undercutting the root of teeth in external spur gear wheels machined with rack-type cutting tools. Trudy MAI no.140:113-129 '61. (MIRA 14:12)

(Gear cutting)

TSUKANOV, I.S., kandidat tekhnicheskikh nauk, dotsent.

Selecting efficient method for gear cutting. Vest.mash. 37 no.6:45-49 Je '57. (MLRA 10:7)

(Gear cutting)

SHMANEV, V.A., kandidat tekhnicheskikh nauk; TSUKANOV, I.S., kandidat tekhnicheskikh nauk.

Investigating the rigidity of pedestal-type vertical milling machines. Trudy MAI no.70:57-83 '56. (MLRA 9:12)
(Milling machines)

PODZEY, Anatoliy Vladimirovich; SULIMA, Andrey Mikhaylovich; FIRAGD, Valentin Petrovich; TSUKANOV, Ivan Semenovich; KUINDZHI, A.A., inzhener, retsenzent; STANKEVICH, V.G., inzhener, redaktor; BELITSKAYA, A.M., redaktor; SHCHERBAKOV, P.V., tekhnicheskiy redaktor

[Technology of building aviation engines; the processing of principal parts and units] Tekhnologiia aviadvigatelestroeniia; obrabotka osnovnykh detalei i uzlov. Pod red. A.V. Podzeia. Moskva, Gos. izd-vo obor. promyshl., 1957. 415 p. (MLRA 10:5)
(Airplanes--Engines)

TSUKANOV, M.V.

"Soviet public health in Kirghizia", 1955 and 1956. Reviewed by M.V.TSukanov. Sov.zdrav. 16 no.11:60-62 N '57. (MIRA 11:1)
(KIRGHIZISTAN--PUBLIC HEALTH)

FLEYSHMAN, S.M., kandidat tekhnicheskikh nauk; TSUKANOV, N.A., inzhener.

Packing embankments under winter conditions. Trudy TSNIIS no.18: 14-31 '56. (Railroads--Earthwork) (MLRA 9:10)

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24.4200 1327, 1103, 1191

S/198/61/007/005/002/015
D274/D303

AUTHORS: Lapkin, B.D., and Tsukanov, O.A. (Dnipropetrov'sk)

TITLE: Dynamic stresses in a visco-elastic fiber on instantaneous application of an end load by means of an elastic element

PERIODICAL: Prykladnaya mekhanika, v. 7, no. 5, 1961, 483 - 486

TEXT: The problem is considered of determining the longitudinal dynamic stresses which arise in a homogeneous visco-elastic fiber, to which an end load is indirectly applied (through a spring). For such a stress

$$S(x, t) = EF \left(1 + \mu \frac{\partial}{\partial t}\right) \frac{\partial u(x, t)}{\partial x}, \qquad (1)$$

where u is the displacement, F - the cross section. In addition

$$\frac{\partial S(x, t)}{\partial x} = \rho \frac{\partial^2 u(x, t)}{\partial t^2} \qquad (2)$$

Card 1/5

where ρ is the mass of unit length. The boundary conditions are set up. Thereupon

$$s(l, t) + Q\ddot{u}(l, t) + \frac{Q}{K}\ddot{S}(l, t) = Qg \qquad (7)$$

where Q is the mass of the load, and K the rigidity of the spring. Introducing the images S^* and u^* of the functions S and u, one obtains, with zero initial conditions

$$p^2S^* = a^2(1 + \mu p)\frac{d^2S^*}{dx^2}, \qquad (8)$$

$$\frac{dS^*}{dx} = \rho p^2 u^*, \qquad (9)$$

$$S^*(l, p) + Qp^2u^*(l, p) + \frac{Q}{K}p^2S^*(l, p) = Qg, \qquad (10)$$

$$u^*(0, p) = 0. \qquad (11)$$

The function S^* which satisfies Eqs. (8) and (9), and conditions

Dynamic stresses in a ...

(10), (11) is expressed by

$$S^*(x, p) = \frac{\alpha Q g \operatorname{ch} \gamma x}{\alpha(1 + \delta p^2) \operatorname{ch} \gamma l + \gamma l \operatorname{sh} \gamma l}, \qquad (12)$$

where $\delta = Q/K$; $\alpha = P/Q$ (P being the mass of the fiber). In order to find the original $S(x, t)$ of $S^*(x, p)$ it is necessary to first solve

$$\alpha(1 + \delta p^2)\operatorname{ch} \gamma l + \gamma l \operatorname{sh} \gamma l = 0. \qquad (13)$$

An analysis shows that all the solutions of this equation are complex. The solution of such equations is very cumbersome. For convenience, the solution of Eq. (13) is sought in the form

$$p_n = \frac{k^2 e^{\pm i 2\varphi} - 1}{\mu}. \qquad (14)$$

Thereby, Eq. (13) decomposes into two transcedental equations with real arguments, viz.

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Dynamic stresses in a ...

$$\frac{\operatorname{sh} 2\frac{l}{a\mu}x}{\operatorname{ch} 2\frac{l}{a\mu}x+\cos 2\frac{l}{a\mu}y}+\alpha\frac{a}{l}\left(b\mu+\frac{\delta m}{\mu}\right)=0, \qquad (15)$$

$$\frac{\sin 2\frac{l}{a\mu}y}{\operatorname{ch} 2\frac{l}{a\mu}x+\cos 2\frac{l}{a\mu}y}+\alpha\frac{a}{l}\left(\frac{\delta n}{\mu}-\mu d\right)=0. \qquad (16)$$

where $x = (k - \frac{1}{k}) \cos\varphi$; (17) $y = (k + \frac{1}{k}) \sin\varphi$; (18)

(b, d, m, n are given by expressions). Thereupon, the first two solutions (p_1 and p_2) found for $\alpha = 0.5$, $1/a\mu = 1$ and $\delta = \mu^2 = 0.01$ are:

$$p_1 = -1.068 \pm 15.411, \qquad (22)$$
$$p_2 = -12.458 \pm 123.293.$$

Card 4/5

Dynamic stresses in a ...

These solutions permit finding approximate values of S(x, t), (in the form of rapidly converging series). The effect of δ and μ on the dynamic stresses is ascertained and the results are listed in the table. It is noted that a knowledge of δ only, is insufficient to evaluate the rigidity K. There are 1 table and 4 Soviet-bloc references.

ASSOCIATION: Dnipropetrovs'kyy instytut inzheneriv transportu (Dnipropetrov'sk Institute of Transportation Engineers)

SUBMITTED: August 25, 1960

Card 5/5

T'UR'NOV, [illegible]

Establishing the norms of the permissible rail exchange and basic principles of the utilization of reconditioned rails. Trudy TSNII MPS no.[illegible] '66. (MIRA 19:10)

MELENT'YEV, L.P., kand.tekhn.nauk; TSUKANOV, P.P., kand.tekhn.nauk; CHERNYSHEV, M.A., prof.

Means of increasing the efficiency of the operation of track facilities. Zhel.dor.transp. 46 no.11:54-58 N '64.

(MIRA 18:1)

TSUKANOV, I.F., kand. tekhn. nauk

Potentials in the management of track operation, maintenance and repair. Put' i put. khoz. 9 no.3:2-5 '65.
(MIRA 18:6)

TSUKANOV, P.P., kand.tekhn.nauk

Lengthening the service life of rails. Zhel.dor.transp. 45 no.10: 24-29 O '63. (MIRA 16:11)

SHCHAPOV, N.P., doktor tekhn.nauk, prof.; ZOLOTARSKIY, A.F., kand.tekhn.nauk; TSUKANOV, P.P., kand.tekhn.nauk

Serviceability of the rail steel and ways to improve it. Vest. TSNII MPS 22 no.6:3-7 '63. (MIRA 16:10)

ZOLOTNITSKIY, A.A.; ROGOZHINSKIY, P.V.; TSUKANOV, P.P., kand.tekhn.nauk.

Maintenance of "R75" rails. Put' i put.khoz. 6 no.11:38-40 '62.
(MIRA 16:1)
1. Nachal'nik Kuybyshevskoy distantsii Kuybyshevskoy dorogi (for Zolotnitskiy). 2. Nachal'nik puteobsledovatel'skoy stantsii Kuybyshevskoy dorogi (for Rogoshinskiy). 3. Rukovoditel' rel'sovoy laboratorii Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta (for TSukanov).
(Railroads—Rails)

TSUKANOV, P.P., kand.tekhn.nauk

Lengthening the service life of rails. Zhel. dor.transp. 44 no.3: 26-32 Mr '62. (MIRA 15:3)

(Railroads—Rails)

VOLZHENSKIY, A.V., doktor tekhn. nauk; KOGAN, G.S., kand. tekhn. nauk; TSUKANOV, Yu.S.,

[Gypsum-cement-puzzuolanic binding materials and concretes on their base] Gipsotsementnoputstsolanov viazhushchie veshchestva i betony na ikh osnove. Riazan', Riazanskaia kompleksnaia nauchno-issl. stantsiia-laboratoriia po sel'skomu stroitel'stvu NIISZ AS i SSSR, 1961. 48 p.
(MIRA 17:8)

IVANOV, Konstantin Yevgen'yevich; ULYUYEV, Dmitriy Ivanovich; TSUKANOV, P.P., inzhener, redaktor; VERINA, G.P., tekhnicheskiy redaktor

[Tracklayer] Rel'soukladchik. Moskva, Gos. transportnoe zhel-dor. izd-vo, 1955. 94 p. (MLRA 8:6)
(Railroads--Track)

TSUKANOV, P.P., kand.tekhn.nauk

Operational strength of modern rails. Trudy TSNII MPS no.220:4-31 '61. (MIRA 15:1)

(Railroads--Rails)

TSUKANOV, P.P., kand.tekhn.nauk

Effect of various operational factors on the formation and development of rail defects 82 and 84. Trudy TSNII MPS no.220:49-69 '61. (MIRA 15:1)

(Railroads--Rails--Defects)

TSUKANOV, P.P., kand.tekhn.nauk; SHKOL'NIK, L.M., kand.tekhn.nauk

Effect of carbon and manganese content of rail steel on the formation or rail defects 82 and 84. Trudy TSNII MPS no.220:70-85 '61. (MIRA 15:1)

(Railroads--Rails--Defects)

TSUKANOV, P.P., kand.tekhn.nauk; ZOLOTARSKIY, A.F., kand.tekhn.nauk

Norms of repair periodicity are a most important feature in track management. Zhel.dor.transp. 43 no.6:27-33 Je '61. (MIRA 14:7)

(Railroads--Maintenance and repair)

TSUKANOV, P.P., kand. tekhn. nauk.

Reinforced concrete ties on the railroads of Western Europe. Put' i put. khoz. no.1:44-47 Ja '58. (MIRA 11:1)
(Europe, Western--Railroads--Ties, Concrete)

SOV/124-58-4-4604

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 4, p 135 (USSR)

AUTHOR: Tsukanov, P. P.

TITLE: Investigation of Elastic and Residual Settling of Crossties (Issledovaniye uprugikh i ostatochnykh osadok shpal)

PERIODICAL: Tr. Vses. n.-i. in-ta zh.-d. transp., 1957, Nr 137, 135 pp, ill., R.5.90

ABSTRACT: Bibliographic entry

1. Tracks (Railroad)--Equipment 2. Wood--Performance

Card 1/1

TSUKANOV, P.P., kand. tekhn. nauk.

Damage and separate removal of R43, R50, and R65 rails.
Trudy TSNII MPS no.154:195-228 '58. (MIRA 12:1)
(Railroads--Rails)

TSUKANOV, P.P., kand.tekhn.nauk

Let's not underestimate the introduction of long and continuous rails. Zhel. dor. transp. 40 no.3:44-49 Mr '58. (MIRA 11:4)
(Railroads--Rails)

TSUKANOV, P.P.; SOROKIN, N.N., redaktor; KHITROV, P.A., tekhnicheskiy redaktor.

[Applying advanced methods to track maintenance on industrial railroad lines] Primenenie peredovykh metodov soderzhaniia puti na promyshlennom zheleznodorozhnom transporte. Moskva, Gos. transp. zheldor. izd-vo, 1953. 92 p. [Microfilm] (MLRA 7:11)
(Railroads--Maintenance and repair)

ALFEROV, A.A.; ARTEMKIN, A.A.; ASHKENAZI, Ye.A.; VINOGRADOV, G.P.; GALKYEV, A.U.; GRIGOR'YEV, A.N.; D'YACHENKO, P.Ye.; ZALIT, M.N.; ZAKHAROV, P.M.; ZOBNIN, N.P.; IVANOV, I.I.; IL'IN, I.P.; KMETIK, P.I.; KUDRYASHOV, A.T.; LAPSHIN, F.A.; MOLYARCHUK, V.S.; PERTSOVSKIY, L.M.; POGODIN, A.M.; RUDOY, M.L.; SAVIN, K.D.; SIMONOV, K.S.; SITKOVSKIY, I.P.; SITNIK, M.D.; TETEREV, B.K.; TSETYRKIN, I.Ye.; TSUKANOV, B.P.; SHADIKYAN, V.S.; ADELUNG, N.N., retsenzent; AFANAS'YEV, Ye.V, retsenzent; VLASOV, V.I., retsenzent; VOROB'YEV, I.Ye., retsenzent; VORONOV, N.M., retsenzent; GRITCHENKO, V.A., retsenzent; ZHEREBIN, M.N., retsenzent; IVLIYEV, I.V., retsenzent; KAPORTSEV, N.V., retsenzent; KOCHUROV, P.M., retsenzent; KRIVORUCHKO, N.Z., retsenzent; KUCHKO, A.P., retsenzent; LOBANOV, V.V., retsenzent; MOROZOV, A.S., retsenzent; ORLOV, S.P., retsenzent; PAVLUSHKOV, E.D., retsenzent; POPOV, A.N., retsenzent; PROKOF'YEV, P.F., retsenzent; RAKOV, V.A., retsenzent; SINEGUBOV, N.I., retsenzent; TERENIN, D.F., retsenzent; TIKHOMIROV, I.G., retsenzent; URBAN, I.V., retsenzent; FIALKOVSKIY, I.A., retsenzent; CHEPYZHEV, B.F., retsenzent; SHEBYAKIN, O.S., retsenzent, SHCHERBAKOV, P.D., retsenzent; GARNYK, V.A., redaktor; LOMAGIN, N.A, redaktor; MORDVINKIN, N.A., redaktor; NAUMOV, A.N., redaktor; POBEDIN, V.F., redaktor; RYAZANTSEV, B.S., redaktor; TVERSKOY, K.N., redaktor; CHEREVATYY, N.S., redaktor; ARSHINOV, I.M., redaktor; BABELYAN, V.B., redaktor; BERNGARD, K.A., redaktor; VERSHINSKIY, S.V., redaktor; GAMBURG, Ye.Yu., redaktor; DERIBAS, A.T., redaktor; DOMBROVSKIY, K.I., redaktor; KORNEYEV, A.I., redaktor; MIKHEYEV, A.P., redaktor

(Continued on next card)

ALFEROV, A.A. ---- (continued) Card 2.
MOSKVIN, G.N., redaktor; RUBINSHTEYN, S.A., redaktor; TSYPIN, G.S., redaktor; CHERNYAVSKIY, V.Ya., redaktor; CHERNYSHEV, V.I., redaktor; CHERNYSHEV, M.A., redaktor; SHADUR, L.A., redaktor; SHISHKIN, K.A., redaktor

[Railroad handbook] Spravochnaia knizhka zheleznodorozhnika. Izd. 3-e, ispr. i dop. Pod obshchei red. V.A.Garnyka. Moskva, Gos. transp.zhel-dor. izd-vo, 1956. 1103 p. (MLRA 9:10)

1. Nauchno-tekhnicheskoye obshchestvo zheleznodorozhnogo transporta. (Railroads)

SKORODUMOV, Georgiy Yevgen'yevich, kand. tekhn. nauk; SMIRNOV, Aleksey Ionovich, kand. tekhn. nauk; SMIRNOV, Mikhail Petrovich, kand. tekhn. nauk; OSIPOV, M.I., inzh., retsenzent [deceased]; TSUKANOV, P.P., kand.tekhn.nauk, red.; BOBROV, Ye.N., tekhn. red.

[Narrow gauge (750 mm.) track design, maintenance, and repair] Ustroistvo i soderzhanie zheleznodorozhnogo puti uskoi kolei (750 mm). Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1961. 262 p. (MIRA 14:12)

(Railroads, Narrow-gauge--Track)

TSUKANOV, P.P., kand.tekhn.nauk

Prevent chipping and cracking in rails. Put' i put.khoz. no.12: 14-16 D '58. (MIRA 12:1)

(Railroads--Rails)

TSUKANOV, P T

1/5
625.51

Primeneniye peredovykh metodov soderzhaniya puti na promyshlennom zheleznodorozhnom transporte (Applying Advanced Methods to Track Maintenance on Industrial Railroad Lines) Moskva, Transzheldopizdat, 1953.
92p.
At head of title: (Moscow) Vsesoyuznyy Nauchno Issledovatel'skiy Institut Zheleznodorozhnogo Transporta.

TSUKANOV, P. P.

Soderzhanie i remont puti. [Maintenance and repair of tracks]. O peredovykh metodakh raboty puteitsev. Pod red. M.A. Chernysheva. Moskva, Gos. transp. zhel-dor. izd-vo, 1947. 237 p. illus.

DLC: TF530.T78

SO: SOVIET TRANSPORTATION AND COMMUNICATIONS, A BIBLIOGRAPHY, Library of Congress Reference Department, Washington, 1953, Unclassified.

TSUKANOV, P. P.

Methods of railroad track supervision Moskva, Gos. Transp. zhel-dor. izd-vo, 1946. 101 p. (51-16892)

TF241.T7

1. Railroads - Russia - Track.

SIMONENKO, L.L.; ROZENBERG, A.M.; RYASNYANSKIY, B.A.; SOKOV, N.A.; TOL'SKAYA, S.Ye.; TROYANSKIY, A.M.; TSUKANOV, P.P., kandidat tekhnicheskikh nauk, redaktor; VERINA, G.P., tekhnicheskiy redaktor

[The Donets railway's advanced method of track maintenance] Peredovye metody truda puteitsev Donetskoi dorogi. Moskva, Gos. transp.zhel-dor.izd-vo, 1956. 110 p. (MLRA 9:8)
(Railroads--Track)

IVANOV, I.A.; TSUKANOV, P.P.; SHCHAPOV, N.P.

Foreword. Trudy TSNII MPS no.111:3-4 '55. (MLRA 9:5)

1 Direktor instituta (for Ivanov); 2. Rukovoditel' otdeleniya putevogo khozyaystva (for TSukanov); 3. Rudovoditel' otdeleniya ispytaniya materialov i konstruktsiii (for Shchapov).
(Railroads--Rails)

TSUKANOV, P.P., kandidat tekhnicheskikh nauk.

Basic trends of technical progress in track building and maintenance.
Tekh.zhel.dor. 15 no.3:1-6 My '56. (MLRA 9:8)
(Railroads--Maintenance and repair)

TSUKANOV, P.P., kand.tekhn.nauk

Improving the design of the rail section. Put' i put.khoz. 5 no.11:10-14 N '61. (MIRA 14:12)
(Railroads--Rails)

TSURANOV, P. P.

Soderzhanie i remont puti; o peredovykh metodakh raboty puteitsev. The maintenance and repair of railroad tracks. Moskva, Gos. transp. zhel-dor. izd-vo, 1947. 237 p. (49-15787)

TF530.T78

1. Railroads - Track. 2. Railroads - Maintenance and repair.

68944

TSUKANOV, P.P., kand. tekhn. nauk.

Further increases in the strength of the heavy type of rails.
Vest. TSNII MPS 17 no.4:3-8 Je '58. (MIRA 11:6)
(Railroads--Rails)

TSUKANOV, P.P., kandidat tekhnicheskikh nauk.

Utilizing potentialities of existing track is a most important task. Zhel.dor.transp. 37 no.1:56-59 Ja '56. (MLRA 9:3)
(Railroads--Track)

TSUKANOV, V.I., kandidat tekhnicheskikh nauk.

Prolonging the life of wooden ties. Zhel.dor.transp. 39 no.7:52-58 Jl '57. (MLRA 10:8)
(Railroads--Ties)

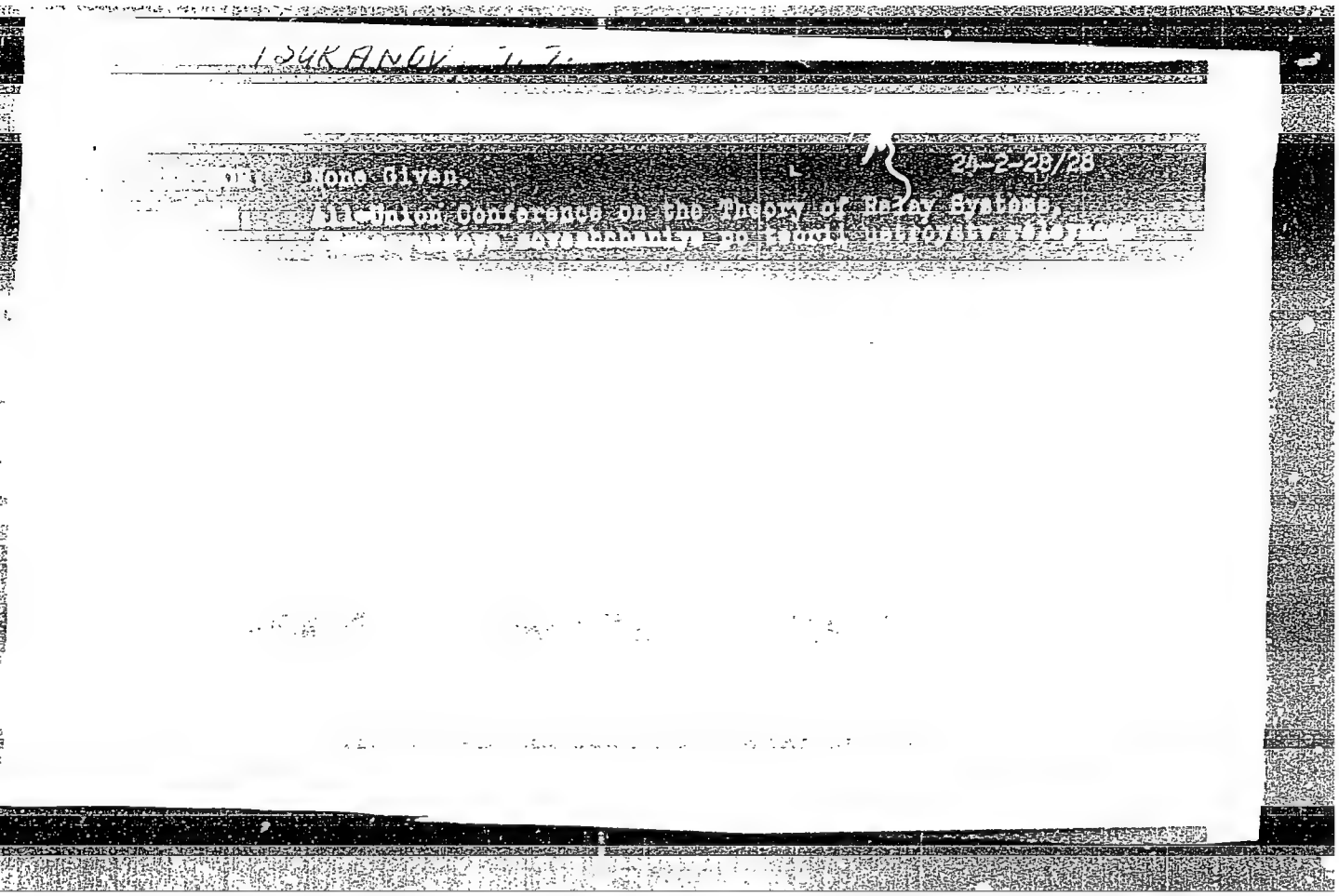
TSUKANOV, Petr Prokhorovich; SOROKIN, N.N., inzhener, redaktor; BOBROVA, Ye.N., tekhnicheskiy redaktor.

[Investigation of elastic and residual settling of railroad ties] Issledovanie uprugikh i ostatochnykh osadok shpal. Moskva, Gos. transp. zhel.-dor. izd-vo, 1957. 133 p. (Moscow, Vsesoyuznyi nauchno-issledovatel'skii institut zheleznodorozhnogo transporta. Trudy no.137) (MLRA 10:7)

(Railroads--Ties)

LISOVSKIY, A.S.; TSUKANOV, T.T.; BORODAVKIN, M.A.; ZAZHIRKO, V.N.; LISUNOV, V.N.; SOLONENKO, G.I.

Remote control of dump car unloading from the operator's cab of electric locomotives. Trudy TEIIZHT 34:145-151 '62. (MIRA 16:8)

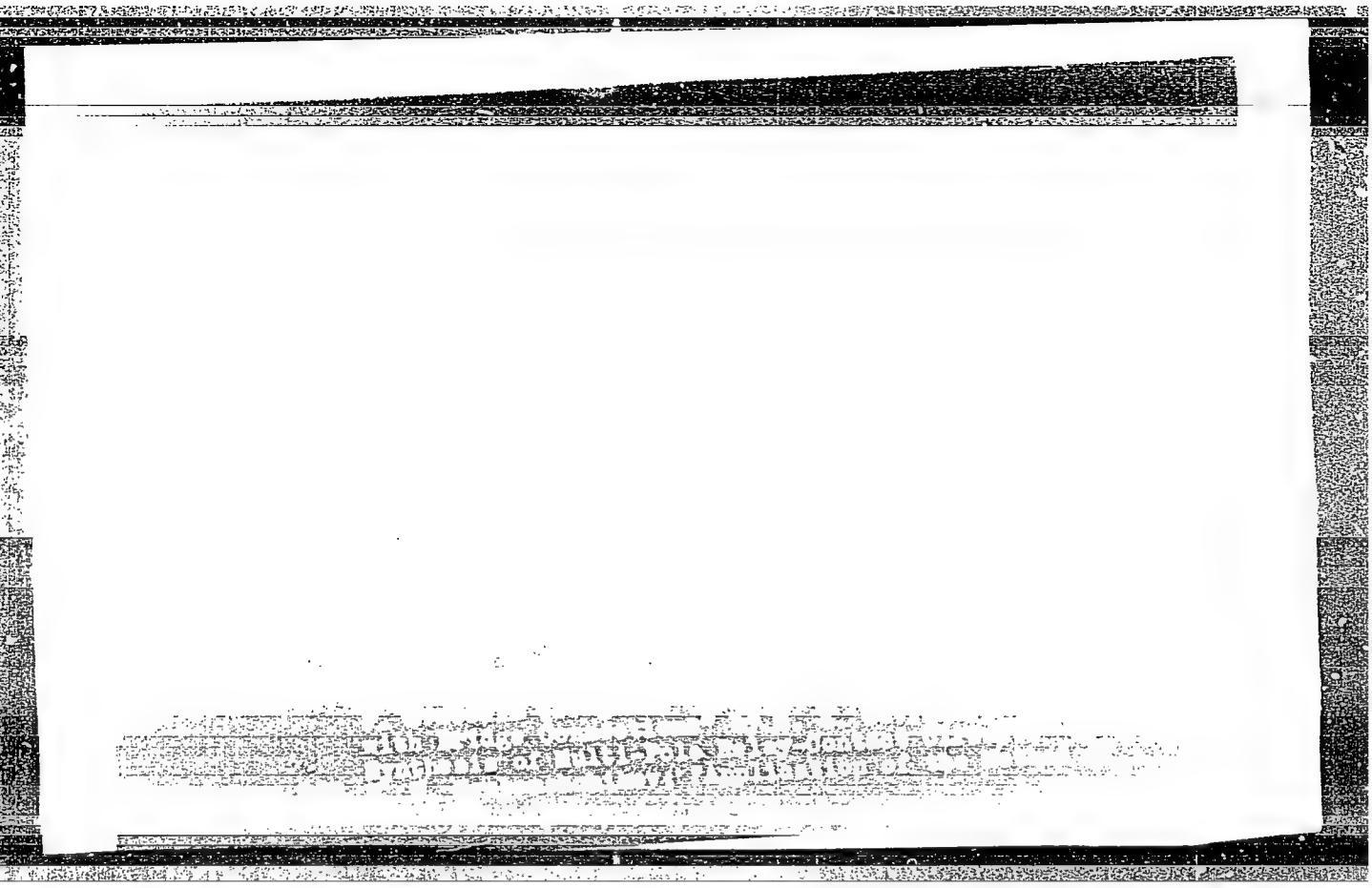


IOFFE, A. F.

24-2-28/28

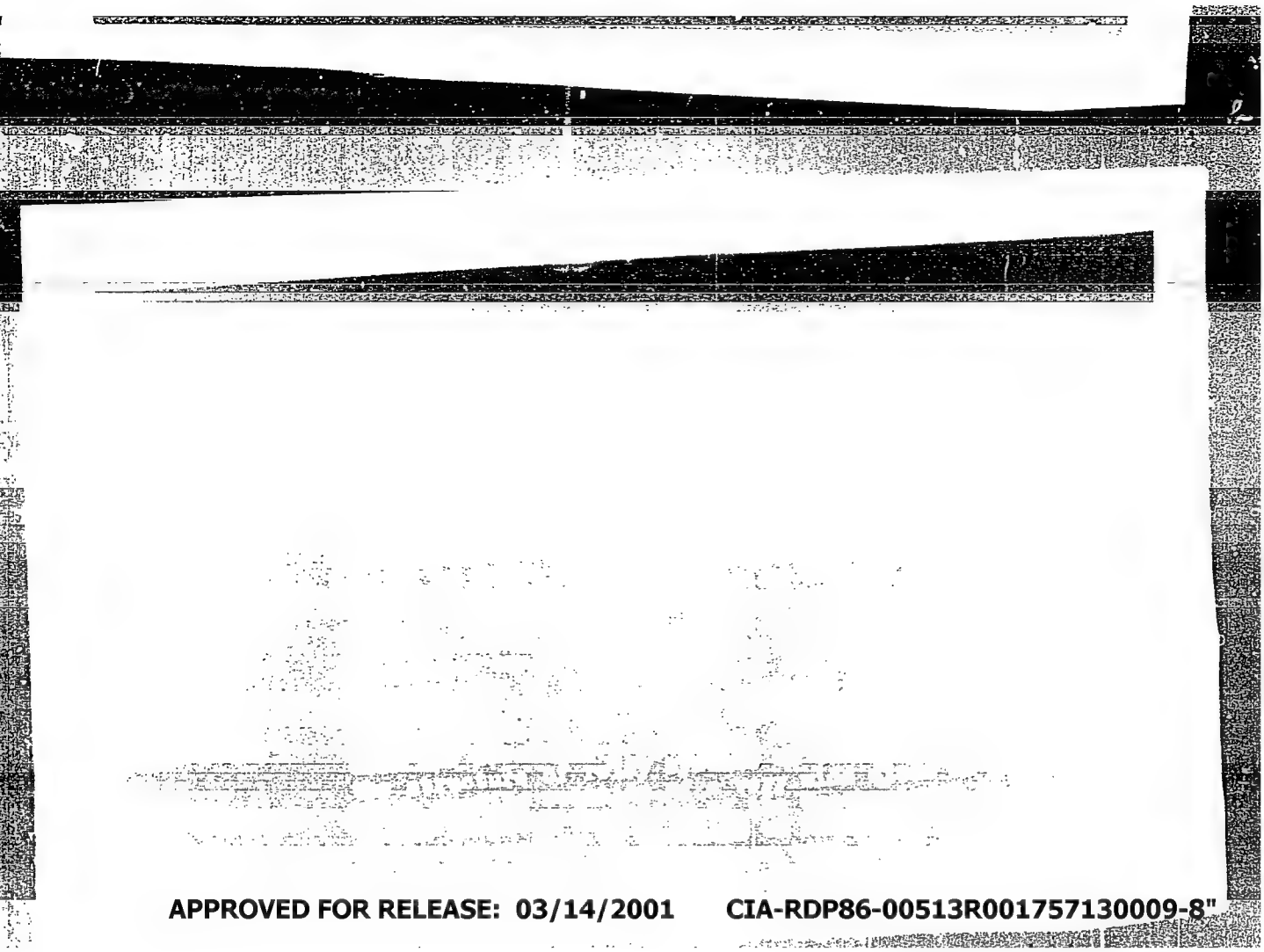
None Given.

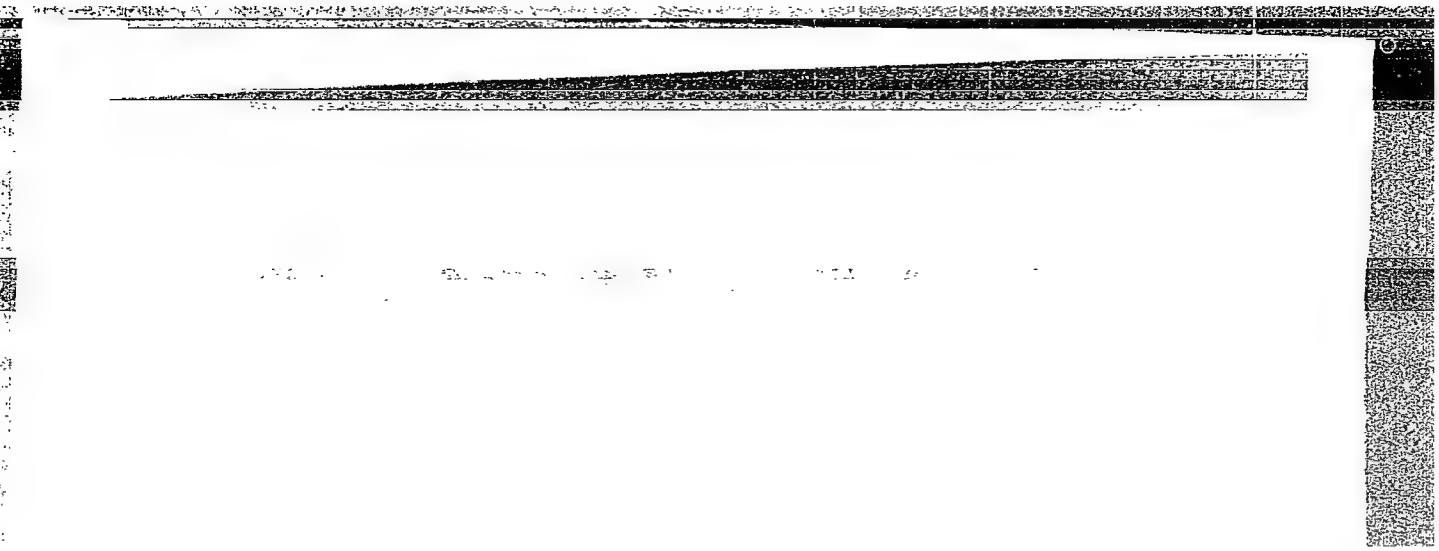
All-Union Conference on the Theory of Semiconductors



APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757130009-8"

following papers dealt with acute topical
"Automation of the Process of the Analysis of Relay
Circuits" by P. P. Parkhomenko; "Matrix Analyser of
Relay Contact Circuits" by T. T. Tsukanov; "Mechanization





APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001757130009-8"

TSUKANOV, T.T., kand.tekhn.nauk

Problems in the mechanization of analysis process of relay switching circuits, Trudy TMIIZHT 23:129-149 '57. (MIRA 13:11)
(Matrices) (Electric switchgear)

TSUKANOV, T.T., kand.tekhn.nauk

Some instances of the application of a matrice circuit analyzer. (MIRA 13:11)
Trudy TEIIZHT 23:150-161 '57.
(Electric relays) (Matrices)

LUPAL, Nikolay Vasil'yevich; BOSIN, Matvey Itskovich; PEREBOROV, Aleksandr Sergeyevich; SMIRNOVA, Appolinariya Vasil'yevna; Myler, Aleksandr Aleksandrovich; TSUKANOV, T.T., kand. tekhn.nauk, retsenzent; SHUPLOV, V.I., kand.tekhn.nauk, retsenzent; GLUZMAN, I.S., kand.tekhn.nauk, red.; USENKO, L.A., tekhn.red.

[Theoretical principles of automatic and remote control] Teoreticheskie osnovy avtomatiki i telemekhaniki. By N.V. Lupal i dr. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1961. 414 p. (MIRA 14:12)

(Automatic control) (Remote control)

TSUKANOV, T.T., assistent

Depicting tracks by a single line in drawings showing isolation of yard tracks. Avtom., telem. i sviaz' 2 no.3:25 Mr '58. (MIRA 13:1)

1.Tomskiy elektromekhanicheskiy institut inzhenerov zheleznodorozhnogo transporta.
(Railroad engineering--Tables, calculations, etc.)

PARKHOMENKO, P. P. and TSUKANOV, T. T.

"Problems Concerning the Automation of the Analysis of Relay Schemes."

report presented at All-Ukion Conference on Problems in the Theory of Relay Devices, Inst. for Autoamtion and REmtoe Control AN USSR, 3-9 Oct 1957.
Vestnik AN SSSR, 1958, No. 1, v. 28, pp. 131-132. (author Ostianu, V. M.)

TSUKANOV, T. T.

TSUKANOV, T. T. "A Matrix Analysor for Relay-contact Systems and Problems of its Application." Min Railways USSR. Leningrad Order of Lenin Inst of Railroad Transport Engineers imeni Academician V. N. Obraztsov. Tomsk, 1956. (Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya Letopis', No. 19, 1956.

S/149/62/000/004/003/003
A006/A101

18 1255

AUTHORS: Zamyatnin, M. M., Tsukanov, V. A., Tomilov, M. Ye., Shutov, I. A.

TITLE: The effect of low temperatures upon the mechanical properties of alloys BT 3 (VT3), BT 5 (VT5), and grade 40 XC (40KhS) steel

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Tsvetnaya metallurgiya, no. 4, 1962, 152 - 156

TEXT: The mechanical properties of titanium alloys and improved alloyed steel were investigated by comparison tests at temperatures from +20 to -60°C, in order to reveal the possibility of replacing high-strength steels by titanium alloys. Smooth and notched specimens were subjected to static tensile and bending tests, skew and impact tests. It was found that the properties of VT5 and, in particular, VT3 titanium alloys approach those of 40 KhS steel at all the test temperatures. The proneness of titanium alloys to reduced ductility and plasticity at low temperatures is somewhat greater than for improved steel; it is lower in impact tests. The results obtained show that titanium alloy parts can be successfully used at temperatures down to -60°C. There are 4 figures and 2 tables.

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S/149/62/000/004/003/003
A006/A101

The effect of low temperatures upon the...

ASSOCIATION: Leningradskiy tekhnologicheskiy institut kholodil'noy promyshlennosti (Leningrad Technological Institute of the Refrigeration Industry) Severo-Zapadnyy zaochnyy politekhnicheskiy institut (North-West Correspondence Polytechnic Institute)

SUBMITTED: January 22, 1962

X

Card 2/2

ZAMYATNIN, M.M.; TSUKANOV, V.A.; TOMILOV, M.Ye.; SHUTOV, I.A.

Effect of low temperatures on the mechanical properties of VT3, VT5 alloys and 20KhS steel. Izv. vys. ucheb. zav.; tsvet. met. 5 no.4:152-156 '62. (MIRA 16:5)

1. Leningradskiy tekhnologicheskiy institut khoodil'noy promyshlennosti i Severo-Zapadnyy zaochnyy politekhnicheskiy institut.
(Titanium alloys) (Chromium steel) (Metals, Effect of temperature on)

ZUDIN, V.M.; YAKOBSON, A.P.; KOSTIN, I.M.; GALATONOV, A.L.; GAMAYUROV, A.I.; TSVERLING, A.L.; MALYSHEVA, T.Ya.; SOKOLOV, G.A.; RUDNEVA, A.V.; TSYLEV, L.M.; GUL'TYAY, I.I.

Effect of the sintering temperature on the mineralogical composition of sinter and its metallurgical properties. Stal' 23 no.6:481-485 Je '63. (MIRA 16:10)

1. Magnitogorskiy metallurgicheskiy kombinat i Institut metallurgii im. A.A.Baykova.

TSUKANOV, V. A.

"Properties of Ferrites Alloyed With Manganese"
Tr. Vses. Nauch. Inzh. Tekhn. o-va Metallurgov, 2, 1954, 141-146

Effect of Mn on mechanical properties of ferrite in various states is investigated. All steel samples alloyed in high-frequency furnace exhibited good viscosity and plasticity. The opinion that Mn content over 1.5% leads to brittleness was not confirmed. (RZhFiz, No 9, 1955)

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